What is a drinking water report and why did I get one?

As required by the U.S. Environmental Protection Agency (EPA), this drinking water report provides information on where water comes from and how it compares to current standards. If after reading this report you have any questions or concerns, please contact us at (317) 571–2443.

On July 1, 2006, Carmel Utilities acquired all customers owned by Indianapolis Water in the Carmel/Clay Township service area. Carmel Utilities immediately began providing customer service functions such as meter reading, billing, and water distribution system maintenance and repair. However, treatment of your water prior to it reaching your home or business is still being provided by the Indianapolis Water treatment facilities. The data and information in this report was provided to Carmel Utilities from Indianapolis Water.

Did you know?

- A 10 minute shower uses between 60 to 100 gallons of water.
- A 1 inch yard hose dispenses 300 gallons of water per hour.
- The standard washing machine uses over 40 gallons of water per load.
- If you leave the faucet on while brushing your teeth, over 4 gallons of water goes down the drain.
- The average American uses 100 gallons of water per day, but less than one gallon of that is for drinking.
- Flushing a regular toilet uses 5 gallons per flush compared to an ultra low-flow toilet which is 1.1 gallons per flush.
- A leaking toilet can waste up to 200 gallons of water per day and it is estimated that 20% of household toilets leak. These leaks are usually caused by worn out flappers. These are easy and inexpensive to repair.
- Chemicals in automatic bowl cleaners that are put in a toilet tank will cause a degradation of flapper valves and other tank components which cause the toilet to leak.
- The water shut off valve for most homes in Carmel is located in the water meter pit in front of the house near the street.
- Between 1950 and 2000 the U.S. population has doubled, but the water use has tripled.
- Running a faucet for 5 minutes uses as much energy as burning a 60 watt light bulb for 14 hours.

City of Carmel Utilities

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City of Carmel Utilities

2008 Annual Water Quality Report

Lawrence W. Inlow Park, Carmel, IN

Where does my water come from? IW's water supply for its customers comes from several sources:

- White River supplies two of the four surface water treatment plants, White River and White River North. Morse Reservoir, near Noblesville, stores water to assure a dependable supply in White River to these plants.
- Fall Creek is another surface water supply. Geist Reservoir stores water to assure an adequate supply in Fall Creek for the Fall Creek Treatment Plant.
- Also, a number of wells are used intermittently to supplement the supplies to the White River, White River North and Fall Creek plants.
- IW also receives some surface water from Eagle Creek Reservoir, which supplies water to the T.W. Moses treatment plant.
- IW presently has four ground water stations that serve smaller portions of its service area. These are: Geist Station, Harding Station, South Well Field and Ford Road Plant. These ground water stations treat water pumped from underground water sources called aquifers.

What's the difference between surface water and ground water?

Surface water comes from rivers, creeks, streams and reservoirs and may potentially have more pollutants and contaminants than ground water. Ground water comes from below the surface, typically from wells drilled deep into the ground. Ground water may have more mineral deposits than surface water.

More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency (EPA)'s Safe Drinking Water Hotline at (800) 426-4791, or via the web at www.EPA.gov.

PWSID 5229024

If you are interested in learning more about Carmel Utilities please call (317) 571-2443 or go to utilities on the City of Carmel website at www.carmel.in.gov.

EPA WaterSense

How much to water your lawn?

Did you know that established lawns only need one inch of water a week? Most people water much more than this. If can be difficult to tell how much water your lawn is actually getting. Often automatic sprinkler systems are set with times that deliver much more water than your lawn actually needs. It is also difficult to tell how much water your lawn is receiving when you use manual sprinklers.

To determine how long you should water your grass follow this helpful tip:

Take an empty tuna or cat food can and place it in an area that is to be sprinkled. Turn on your sprinkler for 15 minutes. Measure the amount of water in the can and you have an idea of how many 15 minute sprinkling segments it will take to reach an inch of water. Take this time minus the rainfall you get during a given week and you have an approximation of how much you need to water. Most people will be surprised at how little water your lawn will need to stay healthy and green.

What's in my drinking water before it is treated?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water (rivers, lakes, streams, ponds, reservoirs, springs and wells) include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural live stock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily pose a health risk.

Indianapolis Water 2008 Treated Drinking Water Data



Substances we detected	MCLG What's the goal	MCL What's allowed	System Wide Results - Levels found in your drinking water	Compliance Achieved	Possible Source Where did it come from?
Antimony (ppb)	6 ppb	6 ppb	ND (not detected)	YES	Discharge from refineries, fire retardants, ceramics, electronics, solder
Arsenic (ppb)	0 ppb	10 ppb	ND	YES	Natural deposits
Barium (ppb)	2 ppm	2 ppm	0.12 (ND to 0.46)	YES	Natural deposits
Chromium (ppb)	100 ppb	100 ppb	9.2 (ND to 16.0)	YES	Natural deposits
Cyanide (ppb)	200 ppb	200 ppb	ND	YES	Discharge from steel/metal/plastic and fertilizer factories
Fluoride (ppm)	2 ppm	2 ppm	0.86 (0.50 to 2.0)	YES	Natural deposits & treatment additive
Nitrate (ppm)	10 ppm	10 ppm	1.7 (ND to 4.2)	YES	Fertilizer, septic tank leachate
Copper & Lead:	**MCLG**	**AL**			
Copper (ppm)	1.3 ppm	1.3 ppm	0.08 (0 of 50 > AL)	YES	Corrosion of customer plumbing
Lead (ppb)	0 ppb	15 ppb	8 ppb (2 of 50 > AL)	YES	Corrosion of customer plumbing

Lead note: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the lead levels at your home may be higher than other homes in your community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Also flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the US EPA Safe Drinking Water Hotline at 800-426-4791 or www.EPA.gov.

Organic Disinfection By-products:					
Total THMs (ppb) (THMs: bromoform, bromodichloromethane, chlorodibromomethane, chloroform)	0 ppb	80 ppb	47 ppb (5.1 to 90 ppb) Flow weighted Annual average	YES	By-product of chlorination treatment
HAA5 (ppb) (HAA5: dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid)	0 ppb	60 ppb	37 ppb (ND to 67 ppb) Flow weighted Annual average	YES	By-product of chlorination treatment
Other Organics:					
Atrazine (ppb)	3 ppb	3 ppb	0.58 ppb (ND - 1.9 ppb)	YES	Herbicide runoff
Dalapon (ppb)	200 ppb	200 ppb	ND	NO* (monitored late)	Herbicide runoff
Di(2-ethylhexyl) phthalate (ppb)	0 ppb	6 ppb	ND	YES	Sample contact with plastics
2,4-D (ppb)	70 ppb	70 ppb	0.23 ppb (ND - 0.30 ppb)	YES	Herbicide runoff
Simazine (ppb)	4 ppb	4 ppb	0.22 ppb (ND - 0.53 ppb)	YES	Herbicide runoff
Cis-1,2-Dichloroethylene (ppb)	70 ppb	70 ppb	0.81 ppb (ND to 1.1 ppb)	YES	Discharge from industrial sources
Tetrachloroethylene (ppb)	0 ppb	5 ppb	ND	YES	Leaching from PVC pipes; Discharge from factories and dry cleaners
Metolacholor (ppb)			0.20 ppb (ND to 0.70 ppb)	YES	
Turbidity:		**TT**			
Turbidity (NTU)	NA	1 NTU	0.25	YES	Soil runoff
Turbidity (% below TT)	NA	95% < 0.3 NTU	100%	YES	Soil runoff
Microorganisms:					
E. coli	0	0	0 confirmed present	YES	Human and animal fecal waste
Total Coliform	0	5%	1.1 % highest month system wide	YES	Naturally present in environment
Cryptosporidium (org/10L)	NA	NA	0	YES	
Giardia (org/10L)	NA	NA	0	YES	
Radionuclides:					
Radium-228 (pCi/L) (2003 data)	0	5	0.86 (ND to 1.4)	YES	Erosion of natural deposits
Disinfectant Residual:		**MRDL**			
Chlorine (ppm) (Total chlorine includes free chlorine and chloramine)	NA	4 ppm	1.5 (0.09 to 2.6 ppm)	YES	Disinfectant & treatment additive
Total Organic Carbon (TOC):					
TOC (Untreated water ppm)	NA	NA	3.83 (1.76 to 5.92)	YES	Naturally present in the environment
Unregulated Parameters:					
Sodium (ppm)	NA	NA	35 (11 to 124 ppm)		Erosion of natural deposits; Leaching
pH (standard units)	NA	NA	7.57 (6.91 to 8.07)		
Hardness (ppm)	NA	NA	294 (126 to 419 ppm)		
Iron (ppm)	NA	NA	0.16 (ND to 0.35 ppm)		
Manganese (ppm)	NA	NA	0.018 (ND to 0.045 ppm)		
Nickel (ppb)		NA	4.6 (ND to 16 ppb)		Erosion of natural deposits; Leaching
Sulfate (ppm)	NA	NA	64 (17 to 160 ppm)		

Test results taken directly from the Carmel area	MCLG	MCL	Average	Range	
Chlorine (MRDL)	NA	4.0 ppm	range: 0.03 - 2.08	Yes	Disinfectant & Treatment Additive
Copper (AL)	1.3 ppm		90th percentile 0.290 ppm	Yes	Corrosion of Customer Plumbing
Lead (AL)	0		90th percentile .005 ppb	Yes	Corrosion of Customer Plumbing
Haloacetic Acids	60 ppb	60 ppb	34.36 (1.071 - 87.07 ppb)	Yes	
Total Trihalomethanes	80 ppb	80 ppb	66.9 (15.96 - 116.2 ppb)	Yes	
Total Coliform (AL)			5%	0	
Untreated Source Water Data:					
Cryptosporidium (org/10L)	NA	NA	*1.6/1.4/0.3/1.0	Yes	* (See special note below)
Giardia (org/10L)	NA	NA	*2.0/2.7/0.1/1.9	Yes	* (See special note below)
TOC (Untreated water ppm)	NA	NA	4.1 (2.8 to 5.7)	Yes	Naturally present in the environment

Important Definitions What do these terms mean?

MCLG – Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL – Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDL – Maximum Residual Disinfectant Level: The highest level of the disinfectant allowed in drinking water. There is convincing evidence that the addition of disinfectant is necessary for control of microbial contaminants.

NTU – Nephelometric Turbidity Units: Unit to measure turbidity.

AL- Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

TT – Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

ppm – Parts per million

ppb – Parts per billion

org/10L – Organisms per 10 liters.

TOC – Total organic carbon.

Turbidity: – The measure of the cloudiness of water. IW monitors turbidity as it is a good indicator of the effectiveness of the filtration system.

*Untreated source water data (in order) from the following plant intakes: White River / Fall Creek / T.W. Moses / White River North.

What does this chart mean? The chart gives you a quick look at some of the substances that the EPA requires us to test for. You'll notice that the contaminant is listed to the left, followed by the maximum amount allowed by regulations and then the amount that we found in our water. The tests are done on treated, or "finished," water.

What's being done to improve water quality?

Wellhead protection – In order to minimize the risk of ground water contamination, Indianapolis Water, in accordance with the State Wellhead Protection Rule and local ordinances, has implemented a Wellhead Protection Program. This program involves working with local planning teams and regulators, mapping of the wellhead protection areas, identifying potential sources of ground water contamination, working with businesses to prevent spills and releases of chemicals, and preparing a contingency plan in case of contamination. IW received the Guardian Award from IDEM in 2008 for outstanding educational efforts regarding wellhead protection.

Source Water Assessments – An inventory of identified potential sources of contamination upstream of each surface water treatment facility has been conducted by the United States Geological Survey for the Indiana Department of Environmental Management. These assessments are a helpful component in IW's overall source water protection strategy. For more information, call IW at (317) 631-1431.

How is the water treated?

Ground water treatment plants aerate and filter water to remove dissolved iron and manganese. Chlorine is added to destroy any bacteria present and to maintain a level of disinfectant as the water travels through the distribution system. Fluoride is added to help strengthen resistance to cavities in teeth. A small amount of ammonia is used to minimize byproducts of the disinfection process and to allow chlorine to persist longer in the distribution system. For a few weeks each year, when the water temperature is cool, no ammonia is added in order to help maintain good water quality in the distribution system. This chlorine residual without ammonia, known as "free chlorine", is a more active form of chlorine. The "free chlorine" has a more noticeable bleach or chlorine smell with the same level of chlorine.

What if I have special health considerations?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA and Centers for Disease Control (CDC) offer guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants, and offer other health and contaminant information on the EPA's Safe Drinking Water Hotline at (800) 426-4791 or www.EPA.gov.

Is there lead in my drinking water?

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Also flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the EPA's Safe Drinking Water Hotline at (800) 426-4791 or www.EPA.gov.

What is Cryptosporidium?

Cryptosporidium is a microscopic organism that lives in the intestines of animals and people. When ingested, this microscopic pathogen may cause a disease called cryptosporidiosis, which has flu-like symptoms. Although there has been no cryptosporidium found in treated finished drinking water, cryptosporidium is found in source water such as White River, Fall Creek, and Eagle Creek Reservoir.

IW utilizes a stringent monitoring program, testing source water and finished drinking water as well as using online monitors that measure the clarity of the water, which helps determine the likeliness of the microbe's presence in the drinking water. At the surface water treatment plants, physical removal by coagulation, flocculation, sedimentation and filtration is used to eliminate the pathogen from drinking water.

How hard is my water?

As is common with water in this region, IW water is considered hard due to the natural levels of the minerals calcium and magnesium. The water hardness, expressed as calcium carbonate, typically ranges from around 200 to 350 milligrams per liter or parts per million (ppm). This equates to 12 to 20 grains per gallon (the measure often referred to in determining water softener settings). Water hardness can vary depending on the hardness of the source water that is used to supply different treatment plants. More specific information about the water hardness typical at your address can be obtained by calling (317) 571-2443.